

### Abstract of the Disclosure

A data transmission protocol and apparatus using a short message service is provided.

The data transmission protocol includes the steps of inserting a data connection service identifier into a user data field. Input message data is segmented into a plurality of short message data fields, and a segmented message data field, a field indicating the number of segmented short messages and a field indicating a current short message number, are inserted into the user data field. A short message field is generated using the user data field. The short message field is transmitted, thereby transmitting relatively large volume of data such as a simple picture and a rough sketch while using the short message service.